



US Army Corps
of Engineers
Kansas City District

TUTTLE CREEK DAM

FACT SHEET

April 2001

POTENTIAL ALTERNATIVES

Given that dam safety concerns related to the effect of a major earthquake exist, several preliminary alternatives are being considered to address these concerns. The list presented is preliminary and can be expanded based on community or agency input. It is also unlikely that all of the alternatives presented will be carried forward into the final, detailed evaluation phase. Alternatives that are not technically feasible, result in high levels of risk, have unacceptable environmental impacts, are exceptionally expensive, or otherwise clearly infeasible will be screened out prior to detailed analyses.

The current list of potential alternatives to address the seismic dam safety concerns is presented as three general groups below:

1. Total Fix:
 - Remove the Dam
 - Stabilize the Soil Beneath the Dam
 - Replace the Dam
 - Enlarge the Dam
2. Minimize Risk:
 - Improved Seepage Control
 - Restricted Lake Levels
 - Downstream Flood Plain Management
 - Improved Emergency Planning
 - Improved Ability to Drain the Lake
3. Do Nothing:

Each of these three groups is discussed in more detail in separate fact sheets.

An issue has also been identified that during extreme flood events, high winds could cause waves to splash over the top of the dam and potentially erode the dam. Instead of doing a detailed analyses of potential alternatives, given the relatively low cost, it is being proposed that anchored and sealed concrete traffic barriers (Jersey Barriers) be installed on the top of the dam to prevent waves from splashing over the dam.

The gates in the spillway have also been identified as not meeting current design criteria for friction on the bearings at the pivot point of the gates. The reliable operation of every gate is critical to the safety of the dam during extreme flood events. Again, due the anticipated relatively limited expense, it is being proposed that the bearings simply be repaired to bring them into compliance with current standards.

This fact sheet is published by the U.S. Army Corps of Engineers, the lead agency for the Tuttle Creek Dam Safety Assurance Program.

Comments or questions about this fact sheet or the Dam Safety Assurance Program should be directed to Bill Empson of the Kansas City District, Corps of Engineers at (816) 983-3556 or by E-mail at tcdam.nwk@usace.army.mil.

Questions or comments about lake operations or Tuttle Creek project office activities should be directed to the on-site Operations Manager, Brian McNulty at 785-539-8511.

For additional information, visit our web site: <http://www.nwk.usace.army.mil/tcdam>



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